

DWB POLICY 94-01  
DATE: NOVEMBER 23, 1994

**BOARD OF CERTIFICATION OF OPERATORS  
OF DRINKING WATER SUPPLY FACILITIES  
POLICY FOR  
RENEWAL TRAINING COURSES**

**I. POLICY OBJECTIVES & APPROVAL REQUIREMENTS**

This policy, developed by the Board of Certification of Operators of Drinking Water Supply Facilities (the Board), establishes criteria for renewal training to ensure that the training is under responsible sponsorship, capable direction, and qualified instructors. The criteria established are the minimum requirements and are meant to be consistent with the intent of the International Association for Continuing Education and Training Council (IACET). This document outlines, at a minimum, the requirements and procedures for obtaining Board approval to conduct training acceptable for awarding continuing education credits for operator certification renewal requirements.

There are four ways in which the Board may approve the issuing of training credits:

1. The organization conducting training issues Continuing Education Units (CEUs) and meets the criteria established for the use of the CEU as established by the IACET.
2. The organization conducting the training has had their training program approved by the Board for issuing training contact hours (TCHs).
3. The individuals or organization conducting training have been approved by the Board to conduct specific training for issuing training contact hours (TCHs).
4. The training program or specific training is cosponsored or sanctioned by an organization which has had their training program approved by the Board for conducting training and issuing credits towards certification renewal.

**II. CRITERIA FOR APPROVING TRAINING PROGRAMS, INSTITUTIONS, COLLEGES, ASSOCIATIONS, COMPANIES, OR OTHER ORGANIZATIONS ISSUING CEUs**

(1) Training programs or organizations having direct application to the water works field and meeting the criteria of the IACET, formerly the Council on the Continuing Education Unit, for the use of Continuing Education Units (CEU) will not need approval of the Board for issuing CEUs to be credited towards meeting the renewal training requirements. The Board except for cosponsored or sanctioned training must approve all other renewal-training programs, which issue CEUs.

### III. CRITERIA FOR TRAINING PROGRAMS

(1) National, regional, state or other organizations, institutions, associations, corporations, etc. (governmental or private) involved in a drinking water supply related field conducting, cosponsoring or sanctioning training, seminars, workshops or meetings but not presently issuing CEUs may apply to the Board for approval of their training program. To obtain training program approval, the organization must submit to the Board for review their training criteria, which should, at a minimum, include the following information:

- (a) the standards by which the organization plans to meet the criteria of this policy, especially, to all intents and purposes, the criteria for individual training approval;
- (b) criteria for cosponsoring and sanctioning training;
- (c) a written policy on maintaining records; and
- (d) a mission statement that outlines the functions, structure, processes, and philosophy which guides the operations of the continuing education or training program.

(2) If granted, this approval will allow the organization to issue TCHs and course numbers for training courses without individual course pre-approval. These TCHs can be used towards meeting the renewal training requirements of the Board, provided that the training criteria is strictly enforced and/or not substantially modified.

(3) An annual training curriculum and/or agenda and course syllabi must be submitted to the Board by the end of each calendar year.

(4) Any changes or modifications to the information submitted to the Board for training program approval shall be submitted to the Board for review and approval 45 days before the date of the training.

### IV. CRITERIA FOR INDIVIDUAL TRAINING COURSES

(1) Any individual or organization wishing approval to conduct a renewal training course for water supply facility operators shall submit the following to the Board for review, except those organizations issuing CEU or approved training program which demonstrated to the Board that they have met the intent of sections (a) through (n) below. This information should be submitted to the Board at least one hundred and twenty (120) days prior to the training program:

- (a) The date, location of the training and description of the training facility;
- (b) The name, address and telephone number of person(s) to contact regarding the training;
- (c) The course outline showing the topic(s) to be presented and time allotted for each (including beginning and ending times). The outline should indicate how this program will meet the needs of a certified public water system operator. Both the learner and the instructor should have a clear understanding of the intended outcomes and how they are to be achieved. Content should be sequenced in a logical manner and should proceed from basic to advanced levels;

- (d) A copy of the instruction material showing the skills and knowledge that the learner will be able to demonstrate following completion of the program;
- (e) A list of any audiovisual materials to be used, such as videotapes, slides, slide/tape presentation, films and overheads;
- (f) The name, address, and background information or resume of instructor(s) which shows the instructor's competence in the subject matter, understanding of the purposes and intended learning outcomes of the program, and ability to communicate the program content at an appropriate level;
- (g) The name of proctor and affiliation. A proctor must be a person affiliated with and identified by an organization involved in the water supply related field. The organization must have an educational unit or arm which is recognized and/or approved by the Board for conducting renewal training and issuing continuing education credits.
- (h) A copy of the certificate of completion being issued to the attendees containing but not limited to the following information:
  - 1. attendees' name;
  - 2. name of course;
  - 3. renewal credits issued;
  - 4. course identification number;
  - 5. date the course was held;
  - 6. name of the course instructor;
  - 7. name of the cosponsoring or sanctioning organization, if applicable; and
  - 8. name and affiliation of proctor.
- (i) The number of training hours to be issued.
- (j) A copy of the attendance roster to be used, which must contain but not limited to the following information:
  - 1. name of the course;
  - 2. renewal credits issued;
  - 3. course identification number;
  - 4. date and time the course was held;
  - 5. location of the course;
  - 6. name of course instructor;
  - 7. names of attendees;
  - 8. morning and afternoon section for signing in. If the course is for more than one day the roster must show each day of attendance;
  - 9. operator certificate number (license number) of all attendees, if applicable; and
  - 10. proctor affidavit.
- (k) A copy of all handouts or course material.
- (l) A written policy on maintaining records must be provided showing the record keeping criteria of the organization conducting the training and issuing credits towards operator certification renewal.
- (m) A copy of the evaluation form, which measures the quality of the training.

(n) Requirements for satisfactory completion of the training must be established in writing. Participants should be informed of the requirements for satisfactory completion prior to their participation. The requirements must be based on a combination of performance and attendance. Attendance requirements must be 90 percent and above and documented by attendance rosters or sign-in sheets. Only those who meet the specified requirements shall earn the continuing education credits.

(2) Renewal credit is based upon actual contact time in the training. All breaks and meal times must be noted on the agenda and will not count toward contact time. Excessive time allotted for introduction or welcomes will not count toward contact time.

(3) No credit will be given prior to the completion of any training course. Participants must attend and stay for the entire session to complete the program satisfactorily. The completion date of a multi-day course is the last day of the course.

(4) Renewal credit will be issued in increments of one-half (0.5) hour. The minimum credit issued will be one-half (0.5) hour. Any approved training issuing continuing education units (CEUs) by an organization meeting the criteria of the Council on the CEUs will be given credit at the rate of one (1.0) CEU per ten (10) training contact hours (TCHs).

(5) A permanent record of participation must be maintained for each individual to whom continual education credits are awarded. These records must be readily available to the individual and Board upon request. The maintenance of permanent records is the responsibility of the organization conducting, sponsoring, or sanctioning the program and awarding the continuing education units or training contact hours. While records may be maintained by the organization or a contracted service, the organization awarding the credits bears the primary responsibility for the maintenance and availability of permanent records. All records must be maintained for a minimum of 8 years and are to be issued as an official statement or transcript upon request of the participant or Board. Further, the organization conducting, sponsoring, or sanctioning training must establish, in writing, provisions for permanent maintenance of continual education records in the event of its demise.

#### V. SANCTIONED OR COSPONSORED TRAINING

Training, seminars, workshops or meetings conducted by individuals may issue credits towards certification renewal if their training, seminars, workshops or meetings are cosponsored or sanctioned by an organization that has had their training program approved by the Board. The credits shall be jointly issue with the sanctioning or co-sponsoring organization. The cosponsoring or sanctioning organization must ensure that both the administrative and program criteria are followed for issuing continuing education for certification renewal. The organization must verify that each participant has (or has not) met the specified requirements for satisfactory completion and is (or is not) awarded the continuing education credits. Permanent individual records for each participant who successfully completes the training must be established and maintained by the organization cosponsoring or sanctioning the training.

#### VI. SUBSEQUENT COURSES

Once the course has been approved, the Board will issue a course number. The course information does not have to be resubmitted for subsequent sessions of that course provided that there are no major change in the course content, time allotted, instructor or material used. Any revision must be submitted to the Board one hundred twenty (120) days in advance of any subsequent sessions of an approved course. The Board Chairman may waive the one hundred twenty (120) day requirement in exceptional situations as determined by the Chairman. All changes will be included in the Board's minutes.

#### VII. COURSE ADVERTISEMENT

All training courses must be approved and issued a course identification number by the Board before the advertisement of training for renewal credit. All advertisements, which state that the training is approved, must include the course identification number and amount of renewal credit hours issued. Organizations issuing CEUs or college courses are exempt.

#### VIII. GRANTING TCH'S

(1) A certified operator taking and passing a Board of Certification of Operators of Drinking Water Supply Facilities examination for a higher grade or different classification during the renewal period will be granted a maximum of seven (7) TCH.

(2) A certified operator who is a member of the:

(a) American Water Works Association/New England Water Works Association or Massachusetts Water Works Association will be issued 1 TCH for each year of membership during the renewal period.

(b) Local organizations recognized by the Board or other out-of-state organizations involved in the water supply related field will be issued .5 TCH for each year of membership during the renewal period.

(3) No more than three (3) TCH will be issued to any one certified operator in the renewal period for membership organizations involved in the water supply related field.

(4) A certified operator attending a Department of Environmental Protection, Environmental Protection Agency or any other state, federal or local organization course or workshop which are submitted and meet the criteria of this policy will be granted TCH as awarded.

(5) Certified operators attending in-house training programs that are co-sponsored or sanctioned by a Board approved organization or association will be granted TCH as awarded.

(6) A certified operator attending a Board approved in-house training, seminar or workshop that imparts general or technical information which is applicable to the professional or technical water works field and will be of value wherever the individual is employed, will be granted TCH as awarded.

(7) A certified operator attending a first aid or CPR course conducted, cosponsored or sanctioned by a Board recognized organization will receive up to 3 TCH per renewal period.

(8) Courses granting CEUs will be issued TCH on a bases of one (1.0) Continuing Education Unit (CEU) = ten (10) Training Contact Hours (TCHs).

(9) College credit for applicable courses will be issued 15 TCH per 1 credit hour. College courses that are audited or taken for non-credit hours will be issued TCH for every hour attended provided that the attendee provides documentation to the Board of the amount of hours attended. This documentation must be validated by the instructor of the course and must provide a daily attendance account from the instructor.

(10) A certified operator teaching courses approved for TCH credits will receive TCH credits. Credit will only be given for teaching the course once per renewal period. Each hour of teaching will be given 2 TCH, up to a maximum 40% of the TCHs required for the grade level for each renewal period. The burden of proof will be on the operator, based on the course advertisement and/or course material, to demonstrate that the operator taught the course. The maximum TCHs for teaching accredited courses shall be as follows:

(a) A Grade 4 Operator can attain no more than 8 TCHs in each renewal period.

(b) A Grade 3 Operator can attain no more than 6 TCHs in each renewal period.

(c) A Grade 2 Operator or a Grade 1 Operator cannot attain teaching credits.

(11) In order to be issued a renewal certificate, all operators must obtain TCHs in accordance with 236 CMR 4.07(4). The Board recommends that fifty percent (50%) of the amount of TCHs required for renewal be

directly related to the operation of Drinking Water Supply Distribution or Treatment Facilities. A list of training topics directly related to the operation of drinking water supply facilities can be found in Attachment A.

(12) A certified operator attending training, that the Board determines is related to the operation of drinking water supply facilities, and that is provided by a Federal agency (i.e. EPA, DHS, FEMA, etc.), a Massachusetts State agency (i.e. MEMA, DPH, DCR, etc.), or any other state's drinking water certification program (eg. NH, NY, VT, or California) will be granted the amount of TCHs as awarded by the federal or state agency or state drinking water certification program. The Board will further determine if the training is directly related to the operation of Distribution or Treatment Facilities or if it is training in safety or administration of drinking water supply facilities, as described in Section VIII(11) of this policy.

#### IX. REVOCATION OF APPROVAL

The Board may revoke any training approval at any time if it is the opinion of the Board that the training program or course no longer meets the criteria established in this policy.

#### X. WAIVERS

The Board Chairman may waive any requirement of this policy in exceptional situations as determined by the Chairman. All waivers shall be included in the minutes of the Board.

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Paul S. Niman, Chairman  
Board of Certification of Operators of Drinking Water Supply Facilities

## ATTACHMENT A

### List of Training Topics Directly Related to the Operation of Drinking Water Supply Facilities

General
Basic Electricity for Operators
Basic Hydraulics
Math for Operators
Water Chemistry
Water Microbiology
Safety
Chlorine Safety
Confined Space
Electrical Hazards
Excavations, Trenching, and Shoring
Hazard Communication
Right-to-Know
Lockout/Tagout
Personal Protective Equipment
Safe Handling of Materials
Spill Response
Operation and Maintenance of Equipment
Booster Pumping Stations
Electrical Controls/SCADA
Hydraulics and Pneumatic Equipment
Motor Control Centers
Programmable Logic Controllers
Pipe, Valves, and Fittings
Pumps, Motors, and Engines
Standby and Auxiliary Support Equipment
Instrumentation
Chemical Feed Systems
Blowers and Compressors
Generators
Process Equipment
Water Treatment Process/Quality Control
Taste and Odor Control
Drinking Water Disinfection
Disinfecting Water Storage Vessels
Chemical Storage and Handling
Basic Knowledge of Water Treatment
Basic Knowledge of Groundwater Treatment
Basic Knowledge of Surface Water Treatment
Plant and Distribution Storage
Bacteriological Sampling Procedures

Chemical Treatment
Water Treatment Processes/Quality Control (cont.)
Flow Measurement
Point of Use/Point of Entry Devices
Groundwater Basics/Aquifers
Well Operation (Yield/Drawdown)
Well Maintenance and Rehabilitation
Aquifer Storage and Recovery
Water Source Treatment and Characterization
Drinking Water Standards and Rules
Arsenic Removal
Nitrate Removal
Pesticide and Herbicide Reduction
Aeration
Iron and Manganese Removal
Corrosion Control
Chemical Precipitation Softening
Cation Exchange Softening
Coagulation and Flocculation
Sedimentation and Clarification
Filtration
Fluoridation
Membrane Processes: Filtration Modes
Adsorption Processes
Residuals Disposal
Sampling and Laboratory Analysis
Zebra Mussel Control
Algae Control
Intake Structures
Chemical Treatment
Flow Measurement: Open Channel and Pipe
Oxidation
Process Optimization and Upgrades
Cross Connection Control and Backflow
Metering
Jar Tests
Distribution Process/Quality Control
Wellhead/Source Water Protection
Operation and Maintenance of Distribution Systems
Disinfection of New and Repaired Mains
Mapping, Locating and Tracer Wire
Hydrants, Valves, and Exercising Programs
Flushing, Pigging and Swabbing
Dechlorination
Fire Flow Testing
Storage
Trenchless Construction: Pipe Bursting
Metering
Service Line and Curb Box Maintenance

Leak Detection and Water Audits
Administration/Management
Compliance
Regulation, Permits, SDWA, CWA, and Operator Certification
Construction/Inspection/Design/Build
Customer Water Quality Inquiries
Emergency and Security Training
Inspections and Surveys
Record Keeping Reporting
Consumer Confidence Reports
Sanitary Surveys
Surface and Groundwater Protection
Water Conservation
Risk Management